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2 September 1960

MEMORANDUM FOR THE RECORD

SUBJECT: Primary and Secondary Cover Stories for the DISCOVERER (Satellite) Program

1. This memorandum is intended to record the results of discussions held both at DPD Headquarters and CORONA support components concerning primary cover stories for the forthcoming and subsequent DISCOVERER launches and secondary cover explanations to be used in the event of exposure.

2. DISCOVERER XV will be explained to the general public and press as being for the purpose of conducting an engineering study to resolve problems of stabilization encountered in DISCOVERER XIV. To justify this explanation it should be noted that it is common knowledge among all those working in the DISCOVERER program that the vehicle did not initially position itself correctly in orbit to enable the recovery sequence to occur. During early orbits the AGENA vehicle used excessive amounts of gas and was on the verge of tumbling. This situation was subsequently corrected but not until mid-course of the intended flight period. Actual recovery was for some time not expected to occur due to the early lack of stabilization. These facts have been made known to the press and therefore it would appear logical, from a technical standpoint, to attempt perfection of basic stabilization vitally necessary to accomplish recovery.

3. The following explanations will be used for subsequent DISCOVERER launches beginning with DISCOVERER XVI:

DISCOVERER	XVI:	Improved AGENA engine with two-days of orbit.
DISCOVERER	XVII:	Improved AGENA engine with three-days orbit.
DISCOVERER	XVIII:	Radiometric experiments for infra-red background (Project MIDAS). No recovery. (True)
DISCOVERER	XIX:	Same as XVIII.
DISCOVERER	XX:	AGENA "B" and restart engine with four-days orbit.

DISCOVERER XXI: New development of guidance system (open loop, closed loop).

DISCOVERER XXII: Same as XXI.

DISCOVERER XXIII: Biomedical recovery of primate from orbit.

4. It is the consensus of those involved in the CORONA/DISCOVERER program that to announce an association with Project SAMOS, prior to launch, would destroy the security controls which have thus far been established and have effectively protected the program. It is recognized that the original separation of WS-117-L into two programs, one being SENTRY (now called SAMOS) and the other, DISCOVERER, was intended to permit the collection of vital intelligence information under the guise of research and development, during a period required to develop an open capability. Security measures, taken thus far to separate the two programs, one white, the other black, has enabled proper control of this endeavor up to the point of apparent success. To openly announce, prior to any given launch, that DISCOVERER is testing components of SAMOS or is in any manner associated with reconnaissance would invite open and uncontrollable speculation by the press. Such speculation could very well stimulate the interest of congressional committees and others who are concerned over U.S. efforts in the field of reconnaissance.

5. Aside from stimulating the press by such announcements, numerous internal problems would be created which, under the present system, are under adequate control. These involve the several thousand (Lockheed) LMSD personnel and the hundreds of AFBMD personnel working on the SAMOS program who would be privileged, for the first time, to know detailed test objectives in the DISCOVERER series. Inasmuch as SAMOS components would be included in the test objectives, these individuals would insist on having results made known to them concerning specific components under test. At the present time, SAMOS engineers are only informed that the test objectives are "Advanced Engineering Tests," classified outside of their interests.

6. To explain the use of secondary cover explanations, the following procedures should be followed: In the event of compromise exposing the use of cameras, particularly within the Soviet Union, prior to the launching of a SAMOS, satellite it can be stated that the DISCOVERER program, in addition to conducting a research beneficial to many U.S. space programs, has indeed tested components of primary concern to SAMOS. On the particular compromising flight, a bread-board test sm scale model of the SAMOS camera was, in fact, flown for the first time in an effort to determine solar effects upon the camera mechanism as well as radiation effects upon the film. In past flights of the DISCOVERER series, tests have been conducted on the following components of SAMOS:

a. The basic Engine/Inertial Reference package (IRP).

C b. Horizon scanner.

D c. Primary battery supply.

E d. Invertors and regulators.

F e. Computer timer.

G f. Propulsion system (XLR81BA-9).

H g. Telemetry components.

I h. Sun position indicator.

J i. Orbit adjuster.

K j. Hydraulic flight controls.

7. If loss or compromise occurs after the firing of a SAMOS vehicle, the explanation can be that, to reduce operating costs, a small scale test model bread-board camera was test-flown using a THOR booster to resolve problems encountered in the previous SAMOS launch. The orbit required for this experiment was necessarily reduced by the use of the less costly THOR which has a capability of no more than four days orbit, whereas the ATLAS enables a maximum of thirty days useful orbit prior to recovery.

8. In a meeting with the responsible officers of the Ballistic Missile Division, USAF, on 31 August and 1 September 1960, they emphasized the need for a complete covert separation within the DISCOVERER and SAMOS programs, and they expressed the view that any action contrary to the above recommendation would destroy that which we have all worked untiringly to build under cover. It was noted that there are certain risks involved in this operation; however, such risks can be minimized by certain precautionary measures currently being taken or intended for immediate implementation. These are as follows:

a. Each capsule returning from orbit has two sink plugs which can be adjusted so that the capsule will sink to ocean depth within a period of from 24 to 72 hours in the event that air recovery fails and surface vessels are unable to reach the capsule. The time span of actual self-destruction can be controlled within these limits to whatever time [limit] is desired. The possibility of retrieval by other than the recovery team is stated as 1-1,000,000 based on pacific missile range study just completed.

b. A fail-safe device is contemplated for early installation to prevent automatic release from orbit if the vehicle is not in the proper recovery position. This requires an adjustment in the programmer tape which controls the reentry cycle. Other devices may be substituted with equal effect.

c. Range safety precautions have been taken at the launch area to retain complete control of the satellite remains in the event destruction is necessary during the launch phase.

d. In the event a capsule is recovered in damaged condition in the recovery area, and the fact film is aboard becomes known to the recovery crew, a CIA Security Agent will be in the recovery area to completely de-brief the crew and take all necessary precautions to prevent further compromise.

e. In the future the film cassett will be removed at Sunnyvale, California and transported separately to the Eastman Kodak plant. This will eliminate the removal of a large container which may become obvious under observation over a long period of repeated success. On those occasions, however, when water recovery is accomplished and there is evidence of moisture in the capsule, the entire capsule will be transported to Eastman Kodak but not until after changing the shipping containers from metal to wood to prevent recognition.

9. Necessary action to implement this program with appropriate public information personnel supporting the DISCOVERER program will be accomplished by the undersigned pending the approval of the DDCI.

[redacted]

Chief, Cover Section
DPD

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